Record Nr. UNINA9910726292003321 Autore Chakrabarti Dilip K. **Titolo** Plant Disease Forecasting Systems: Procedure, Application and Prospect / / by Dilip Kumar Chakrabarti, Prabhat Mittal Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 981-9912-10-5 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (135 pages) 632.3 Disciplina Soggetti Plant diseases **Ecology** Agriculture Botany Plant Pathology Plant Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia 1. Historic Plant Disease Epidemics -- 2. Epidemic Factors -- 3. Nota di contenuto Predicting Variables. 4. Criteria to Develop Forecast -- 5. Modeling of Epidemic Dynamic -- 6. Decision Support Systems (DSSs) -- 7. Expert System -- 8. Geographic Information Systems: Web-Based Disease Forecasting -- 9. Decision Support Systems and Expert Systems: A Comparison -- 10. Forecasting in Changed Climate -- 11. Disease Detection: Imaging Technology and Remote Sensing -- 12. Classical Disease Forecasting Systems. Sommario/riassunto This book focus on creating popularity and interest in modeling, derivation of equations for plant disease forecasting or construction and use of Web-based Expert Systems among plant pathologists. This book covers descriptions of many historic plant disease epidemics, various forecasting systems and methods of their construction, instruments required for study of plant disease epidemics, widely used commercial forecasting systems and present global scenario of

> forecasting. In the human history plant disease epidemics have brought unsurmountable misery many a times. Still breaking out of epidemic in any time in any part of the world is a stark reality. The panic spraying

of chemical pesticides is not a panacea. Only the IPM technology may give relief. This technology if backed by the disease forewarning system may yield the desired results. Hence, an in depth understanding of plant disease forecasting system and its successful implementation may bring the global food security. This title provides a useful background for all students, practitioners, and researchers interested in the field of epidemiology, food security and agriculture sciences.